

ABSTRACT OF THE DISCLOSURE

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3 An interleaver for a digital modem is provided where consecutive
4 codeword symbols are written in parallel into first cells of
5 registers. Reading from registers for interleaving purposes is
6 dictated by a permutation table containing N-1 numbers which
7 represent registers from which the current symbol should be read.
8 Prior to data transmission, a calculation is made of lengths of
9 the registers and a permutation table is determined. During data
10 transmission, the first symbol in each codeword is sent directly
11 to the output, the other symbols are sequentially written into the
12 first cells of the corresponding registers, and the last cells of
13 the registers are sequentially read in the order determined by the
14 permutation table. After writing the incoming codeword into
15 memory and reading the outgoing codeword, the contents of all
16 memory registers are synchronously shifted by one cell in the
17 output direction. A corresponding deinterleaver is also provided.